

USSN: 10/549,544

Response to Office Action Dated January 17, 2007

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AMENDMENTS TO THE CLAIMS

1. (currently amended) An ~~Adhesive~~ adhesive composition for use in the manufacture of wood-based boards, the adhesive composition comprising 40 to 80 w % of a resin, 5 to 30 w % of a filler, 0.1 to 10 w % of a foaming agent and 0 to 40 w % of a solvent, wherein foaming agent comprises a compound selected from the group consisting of organic surface-active sulfate compounds, or inorganic surface-active sulfate compounds, sulfonate compounds, phosphate compounds, phosphonate compounds, ~~their derivatives~~ and combinations thereof.

2. (currently amended) ~~The An~~ An adhesive composition ~~of claim 1, for use in the manufacture of wood-based boards, the adhesive composition comprising 40 to 80 w % of a resin, 5 to 30 w % of a filler, 0.1 to 10 w % of a foaming agent and 0 to 40 w % of a solvent,~~ wherein the foaming agent comprises a compound selected from the group consisting of lauryl sulfate, lauryl ether sulfate, benzene sulfate ~~their derivatives~~ and combinations thereof.

3. (currently amended) ~~The An~~ An adhesive composition ~~of claim 2, for use in the manufacture of wood-based boards, the adhesive composition comprising 40 to 80 w % of a resin, 5 to 30 w % of a filler, 0.1 to 10 w % of a foaming agent and 0 to 40 w % of a solvent,~~ wherein the foaming agent comprises a compound selected from the group consisting of sodium lauryl sulfate, ammonium lauryl sulfate, potassium lauryl sulfate, sodium lauryl ether sulfate, ammonium lauryl ether sulfate, potassium lauryl ether sulfate, ~~their derivatives~~ and combinations thereof.

4. (currently amended) ~~The An~~ An adhesive composition ~~of claim 2, for use in the manufacture of wood-based boards, the adhesive composition comprising 40 to 80 w % of a resin, 5 to 30 w % of a filler, 0.1 to 10 w % of a foaming agent and 0 to 40 w % of a solvent,~~ wherein the foaming agent comprises a compound selected from the group consisting of sodium isopropyl sulfonate, sodium lauryl sulfonate, sodium benzene sulfonate, sodium alkyl benzene sulfonate, ammonium lauryl phosphate, ammonium lauryl sulfonate, potassium olein sulfate, sodium naphthalene sulfonate, ~~their derivatives~~ and combinations thereof.

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5. (previously presented) The adhesive composition of claim 1 wherein the composition comprises 0.1 to 5w % foaming agent.
6. (currently amended) The adhesive composition of claim 1 wherein the adhesive composition contains 1 to 10w % foaming agent, and wherein the foaming agent comprises 0.1 to 30w % of a compound selected from the group consisting of lauryl sulfate, lauryl ether sulfate, benzene sulfate, ~~their derivatives~~ and combinations thereof.
7. (currently amended) The ~~adhesive~~ adhesive composition of claim 1 wherein the resin is selected from the group consisting of urea-formaldehyde, melamine urea-formaldehyde, melamine urea-formaldehyde phenol, phenol-formaldehyde, phenol melamine formaldehyde, phenol resorcinol formaldehyde ~~OF, MUF, MUFP, PF, PMF, PRO, their derivatives~~ and combinations thereof.
8. (previously presented) The adhesive composition of claim 1 wherein the composition comprises 50 to 70 w % resin.
9. (previously presented) The adhesive composition of claim 1 wherein the composition comprises 8 to 20 w % filler.
10. (previously presented) The adhesive composition of claim 1 wherein the filler is selected from the group consisting of starch, wheat meal, chalk, sodium carbonate, potassium carbonate, calcium carbonate, ammonium sulfate, wood powder, quebracho, and combinations thereof.
11. (previously presented) The adhesive composition of claim 1 wherein the composition contains 12 to 35 w % solvent.
12. (previously presented) The adhesive composition of claim 1 wherein the solvent is water or an organic solvent.

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13. (previously presented) The adhesive composition of claim 1 further comprising added air.
14. (previously presented) The adhesive composition of claim 1 wherein the foaming agent is in solid, liquid or paste- like state.
15. (previously presented) The adhesive composition of claim 1 prepared by a process comprising mixing the resin, filler, foaming agent and solvent to form an emulsion.
16. (previously presented) The adhesive composition of claim 15 wherein the mixing is at a temperature greater than about 40 °C.